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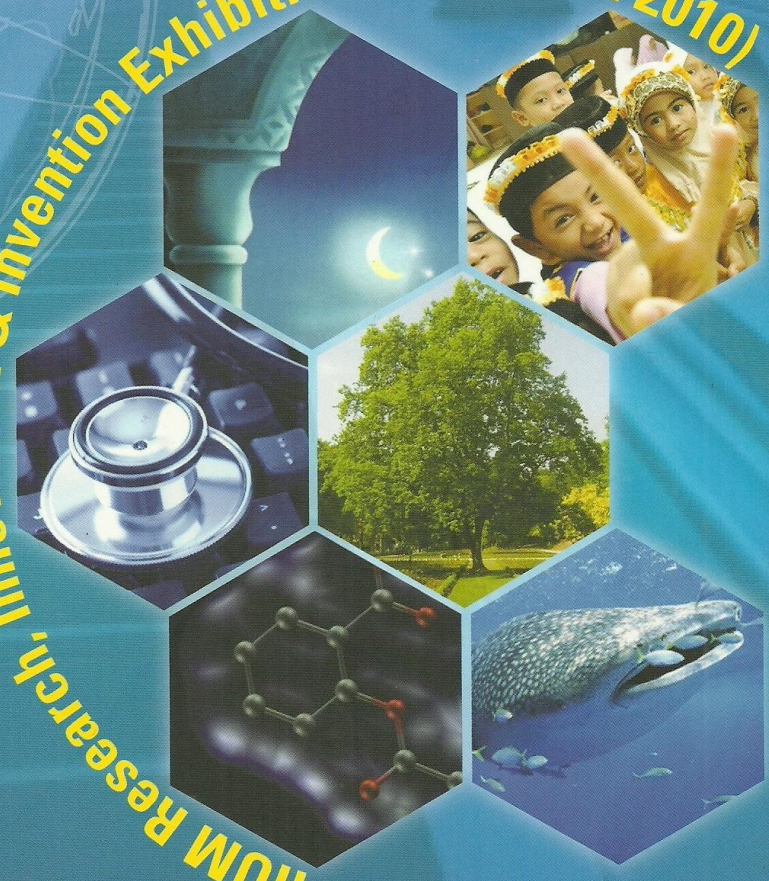

ENHANCING QUALITY RESEARCH &

INNOVATION for SOCIETAL DEVELOPMENT

P-304 Discovery of Saffron Trace as an Inhibitor for the destructive Effect of Green Verdigris (Copper Based Pigment) in Persian Miniature Paintings

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The present study aims to investigate the possible reaction of green verdigris pigment mixed with saffron as a means of stopping the destructive effect of copper-based pigment, and to investigate the presence of saffron in green verdigris pigment used in Iran, as mentioned in Persian medieval texts. In the first stage the presence of saffron in green verdigris pigment has been studied and acknowledged by the FT-IR method. The result showed no indication of charring of paper on painted areas where verdigris pigment was mixed with saffron. Whereas the verdigris used in pure form had extensively charred the paper support. In order to examine the possible protective action of saffron, in the second stage a major chemical mechanism responsible for this behavior-saffron solution serving as a buffer- has been studied and in the final stage was identified.

P-305 Gated Community

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The interpretation of gated community in Malaysia often been regarded as a residential community area equipped with human or electronic security surveillance. However, the true meaning is a community area enclosed by walls and fences, most of the time having controlled over the entrances especially for automobiles and pedestrians. It is an issue where the concept was only used for profit gaining and not looking at the holistic approach towards overall community planning and the landscape environment. This research reviews the current practice of community planning in Malaysia and seek to establish any significant developments pertaining to planning implication and community landscape in the approaches used. The paper appraises international and local case studies to compare the true meaning, theory and implementation of the term gated community. Initial guidelines for gated community development in Malaysian are proposed.

P-309 Simulation Analysis and Experimental Setup of Free Space Optics under Tropical Weather Condition

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Free Space Optic (FSO) has gain a growing interest in the area where a very large bandwidth is required. FSO also has come out as a good solution for bottleneck problem. The advantages of FSO over classical microwave link and fiber system are no spectrum license and frequency coordination is required, shorter time of deployment, higher speed, and low cost, broader and unlimited bandwidth. Although FSO has all these advantages, it has limitation due to the effect of weather on the link. The local weather condition will affect availability and reliability of the link. Currently, most of the studies have been conducted in temperature region. In tropical region, there is still lack of information and studies on the effect of weather attenuation on FSO link. A simulation analysis and experimental setup is resented as a basis for tropical weather attenuation studies. The simulation & experimental setup will be done for the following distance; 1 km, 5 km and 16km. The 1 km link distance will be from Kulliyah of Engineering, IIUM to Mahallah Ruqayyah, IIUM. The 5km link will be from IIUM to a Bt. Caves area. The 16km link will be from IIUM to a Telecom tower in Bukit Lanjan. The parameters that we will be studied are fixed optical attenuation such as molecular and geometrical attenuation and variable attenuations such rain,